

Commonwealth of Kentucky
Division for Air Quality

PERMIT STATEMENT OF BASIS

CONDITIONAL MAJOR
PERMIT NO. F-03-004 R1
DRS SUSTAINMENT SYSTEMS INC
7375 INDUSTRIAL ROAD
FLORENCE, KENTUCKY
PLANT I.D. # 021-015-00018
AI # 196
ACTIVITY NYMBER: APE20070001
JANUARY 30, 2007
FROUGH SHERWANI

MINOR REVISION (REVISION 1):

On January 23, 2007, the source submitted an application for the name change from “Keco Industries, Inc” to “DRS Sustainment Systems Inc” and for the addition of following emission units:

Emission Point # 13:

Three (3) generators equipped with internal combustion engines that are rated less than 50 hp. These units use diesel fuel.

- a. 15 KW genset military model (MEP 113 A) @ 20 hp
- b. Kohler Model 30R2G genset @ 40 hp
- c. Production unit 10 KW genset @ 13 hp

Emission Point # 14:

one generator (Kohler model 80 RE02JB @ 107 hp) equipped with internal combustion engines rated more than 50 hp. This unit uses diesel fuel

On August 9, 2006 the Division issued a “off permit changes” for the addition of a portable spray booth, 32 Roof Top Heating, AC Units and 32 Unit Heaters.

On October 21, 2004 the Division received an application for the removal of emission point # 06 (Indirect Heat Exchanger) and Emission Point # 07 (Indirect Heat Exchangers, Unit #1 and Unit #2).

All the above emission units (four generators, one portable touch-up booth, and 32 Roof Top Heating, AC Units and 32 Unit Heaters) are included in this revised permit.

Emission inventory system has been updated for the added emission points.

40 CFR 60 Subpart IIII (60.4200 (a))—Standards of performance for stationary compression ignition internal combustion engines, is not applicable to emission points 13 and 14, as these units were constructed after July 11, 2005 and manufactured before April 1, 2006.

SOURCE DESCRIPTION:

The source manufactures special purpose military air conditioning equipment. Emissions point include:

- EP001 Paint booth with associated dry chambers
- EP002 Paint booth with associated dry chambers
- EP003 Phosphoric acid dip tank
- EP004 Chromic acid dip tank and a ultra seal tank
- EP005 Welding
- EP006 Cleaver brooks indirect heat exchanger
- EP007 Two (2) Rite In direct heat exchangers
- EP008 Paint booth with associated dry chambers
- EP009 Paint booth with associated dry chambers
- EP010 Paint booth with associated dry chamber

COMMENTS:

Keco Industries currently hold an amended operating permit issued in October 1990. The source is adding 3 new paint booths (EP # 008, 009, 010), and modifying one paint booth (EP #2). The modification itself has a potential to emit greater than 100 TPY of VOC, greater than 10 TPY of HAP and greater than 25 TPY of HAP's. The facility has requested that an enforceable limit be placed on VOC, HAP, and HAP's emissions to preclude the applicability of title V and 401 KAR 59:225.

EMISSION FACTORS:

Material Safety Data Sheet, Industrial Ventilation Hand Book, AP-42

APPLICABLE REGULATIONS:

401 KAR 61:015, Existing indirect heat exchangers

401 KAR 63:021, Existing sources emitting toxic air pollutants

401 KAR 59:010, New process operations

401 KAR 59:225, New miscellaneous metal parts and products surface coating operations, is not applicable because the source has opted to limit the VOC emissions to less than 30 tons per year. At this time, Boone County is designated as attainment for ozone.

Type of control and efficiency

Fabric filter for PM for paint booths (EP # 01, 02, 08, 09, 010) with a claimed efficiency of 98%.

EMISSION AND OPERATING CAPS DESCRIPTION:

VOC Conditional Major Limitation. The source wide VOC emission shall not exceed 30 TPY during any consecutive twelve (12) month period. VOC emission limit for the existing points (EP 001-007) shall not exceed 20 TPY during any consecutive twelve (12) month period.

HAP and HAP's Conditional Major Limitation. The emission of any individual Hazardous Air Pollutant (HAP) shall not exceed 9 tons during any consecutive twelve (12) month period for the entire source. The emissions of combined HAP's shall not exceed 22.5 TPY for the entire source. Monthly records, which demonstrates compliance with this limitation shall be maintained and total HAP emissions shall be reported semiannually by January 30 and July 30.

EP # 03- Phosphoric Acid Dip Tank. Source was given an allowable of 750 gal/yr of phosphoric acid solution from the old permit (C-82-198) limit. Pursuant to 401 KAR 63:021, compliance with this limit must be maintained.

EP # 04 – Chromic Acid Dip Tank. Source was given allowable of 200 lb/yr of chromic acid solution limit.** Pursuant to 401 KAR 63:021, compliance with this limit must be maintained.

CREDIBLE EVIDENCE:

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has not incorporated these provisions in its air quality regulations.

** In the permit (O-83-157) a limit of 400 gal/yr of chromic solution was given. The company has reported that to be a mistake and it was changed to 400 lb/yr of make up rate of chromic acid solution. However, the calculation showing whether chromium emission was below the significant level was not documented. A calculation was redone using the equation $L=(m)(k)(168)/T$ [401 KAR 63:021 Appendix B] to verify whether 400 lb/yr was acceptable and it was found that emissions were **above significant threshold** as per 401 KAR 63:021. Again calculation was redone with 200 lb/yr using the same equation as stated above, and the emission level was found to be **below the significant thresholds**. Therefore, the limit was changed from 400 to 200 lb/yr of chromic acid solution.
